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package\$1) same ((data adj1 flow adj1

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USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	226	<u>L2</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (programmable adj1 gate adj1 array\$1))	61	<u>L1</u>

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Terms	Documents
(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	8

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package\$1) same ((data adj1 flow adj1

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JPAB	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	8	<u>L3</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	226	<u>L2</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (programmable adj1 gate adj1 array\$1))	61	<u>L1</u>

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EPAB	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	10	<u>L4</u>
JPAB	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	8	<u>L3</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	226	<u>L2</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (programmable adj1 gate adj1 array\$1))	61	<u>L1</u>

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DWPI	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	8	<u>L5</u>
EPAB	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	10	<u>L4</u>
JPAB	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	8	<u>L3</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	226	<u>L2</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (programmable adj1 gate adj1 array\$1))	61	<u>L1</u>

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Terms	Documents
(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	11

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TDBD	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	11	<u>L6</u>
DWPI	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	8	<u>L5</u>
EPAB	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	10	<u>L4</u>
JPAB	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	8	<u>L3</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	226	<u>L2</u>
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$3 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (programmable adj1 gate adj1 array\$1))	61	<u>L1</u>

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Today's Date: 4/20/2001

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Terms	Documents
11 and 12	29

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11 and 12

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USPT	11 and 12	29	L3
USPT	(bus\$3 or (sub adj1 bus\$3)) same (bundl\$4 or group\$1 or together or package\$1) same ((data adj1 flow adj1 processor\$1) or (gate adj1 array\$1))	226	L2
USPT	(710/100)!.CCLS. or 710/101.ccls. or 710/8.ccls. or 710/72.ccls. or 710/126.ccls. or 712/11.ccls. or 712/14.ccls. or 712/18.ccls. or 716/16.ccls. or 716/17.ccls. or 326/38.ccls. or 326/39.ccls. or 326/41.ccls. or 439/68.ccls.	4184	L1

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1 Parallel Dispatch Queue: a queue-based programming abstraction to parallelize fine-grained communication protocols

Falsafi, B.; Wood, D.A.

High-Performance Computer Architecture, 1999. Proceedings. Fifth International Symposium On
Page(s): 182 -192

[\[Abstract\]](#) [\[PDF Full-Text\]](#) CNF

2 Proceedings of the Thirtieth Hawaii International Conference on System Sciences

System Sciences, 1997, Proceedings of the Thirtieth Hawaii International Conference on , Volume:

[\[Abstract\]](#) [\[PDF Full-Text\]](#) CNF

3 Datapath synthesis using onchip multiport memories

Ahmad, I.; Chen, C.Y.R.

Computers and Digital Techniques, IEE Proceedings E [see also Computers and Digital Techniques Proceedings-], Volume: 140 Issue: 4 , July 1993

Page(s): 227 -232

[\[Abstract\]](#) [\[PDF Full-Text\]](#) JNL

4 Proceedings of the Twenty-Fourth Annual Hawaii International Conference on System Sciences No.91TH0350-9)

System Sciences, 1991. Proceedings of the Twenty-Fourth Annual Hawaii International Conference
Volume: i , 1991

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L4: Entry 5 of 10

File: EPAB

Aug 8, 1995

DOCUMENT-IDENTIFIER: US 5440453 A
TITLE: Extended architecture for FPGA

FPAR:

The invention provides a packaging technique implementing an electronic circuit, comprising several individually packaged sub-circuits, on a circuit board within the footprint of a single package. The embodiment of the present invention is particularly advantageous when implementing application specific integrated circuits (ASICs) or field programmable gate arrays (FPGAs). Selected pins of an upper package are electrically coupled to corresponding pins of the next lower adjacent package such that the pins of the uppermost package can be coupled to the pins of the lowermost package and correspondingly to the signal leads and power bus conductors of the printed circuit board. Portions of selected pins may be removed from one or more packages prior to forming the stacked structure to electrically isolate corresponding pins of upper packages from the pins of lower packages. A template is provided that permits rapid identification of pins to be removed before the packages are configured in the stack. Careful partitioning of the electrical circuit permits a limited number of standard bonding patterns to be combined in a large variety of configurations by rotating packages relative to adjacent packages in the stack. Each package is also provided with additional pins that may be used for vertical routing in a manner that couples non-adjacent packages without coupling to intervening packages. Heat sinks and heat pipes are attachable to the stack to increase thermal dissipation.

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L3: Entry 5 of 8

File: JPAB

Dec 19, 1990

DOCUMENT-IDENTIFIER: JP 02305472 A

TITLE: GATE ARRAY WITH BUILT-IN CPU AND MANUFACTURE THEREOF

FPAR:

PURPOSE: To enable a gate array to be easily designed and to be easily predicted in specification and performance of product before design by a method wherein a wiring pattern is provided to connect the intermediate point of a bus line with the signal terminal of a central processing unit core and the signal terminal of one of cell groups respectively.

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L3: Entry 7 of 8

File: JPAB

Feb 3, 1989

DOCUMENT-IDENTIFIER: JP 01033635 A

TITLE: DATA FLOW PROCESSOR

FPAR:

CONSTITUTION: A link table 11, an operand fetch table 12, a data memory 13, a function table 14, a buffer queue 15, and a processing unit 16 are successively connected together in a ring form via a pipeline type bus. The tokens are transferred along said internal ring bus synchronously with the pipeline clock of a data flow processor 1. When the convolution is carried out with N pieces of data, it is possible to fetch a coefficient $w(i)$ via the table 14 by means of a group identifier of the group tokens. Thus it is not required to make a token train produced by a token producing part 20 make two rounds of the ring bus for fetching N pieces of data and the coefficient $w(i)$. Thus the convolution processing is performed at high speed.

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L7: Entry 1 of 15

File: USPT

Apr 3, 2001

US-PAT-NO: 6211697

DOCUMENT-IDENTIFIER: US 6211697 B1

TITLE: Integrated circuit that includes a field-programmable gate array and a hard gate array having the same underlying structure

DATE-ISSUED: April 3, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lien; Jung-Cheun	San Jose	CA	N/A	N/A
Feng; Sheng	Cupertino	CA	N/A	N/A
Sun; Chung-yuan	San Jose	CA	N/A	N/A
Huang; Eddy Chieh	San Jose	CA	N/A	N/A

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Actel	Sunnyvale	CA	N/A	N/A	02

APPL-NO: 9/ 318198

DATE FILED: May 25, 1999

INT-CL: [7] H03K 7/38, H03K 19/177

US-CL-ISSUED: 326/41; 326/39

US-CL-CURRENT: 326/41; 326/39

FIELD-OF-SEARCH: 326/38, 326/39, 326/40, 326/41

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/> <u>4908528</u>	March 1990	Huang	307/443
<input type="checkbox"/> <u>5805496</u>	September 1998	Batson et al.	365/154
<input type="checkbox"/> <u>5809281</u>	September 1998	Steele et al.	395/497.01
<input type="checkbox"/> <u>5818750</u>	October 1998	Manning	365/154
<input type="checkbox"/> <u>5825202</u>	October 1998	Tavana et al.	326/39
<input type="checkbox"/> <u>5841295</u>	November 1998	Kaviani	326/39
<input type="checkbox"/> <u>6020755</u>	February 2000	Andrews et al.	326/39
<input type="checkbox"/> <u>6031391</u>	February 2000	Couts-Martin et al.	326/38

ART-UNIT: 289

PRIMARY-EXAMINER: Mai; Son

ATTY-AGENT-FIRM: McCutchen, Doyle, Brown & Enersen, LLP

ABSTRACT:

An integrated circuit (IC) includes both a field-programmable gate array (FPGA) and a hard array (HA). The FPGA includes a first set of functional groups that each include an underlying logic structure and memory cells for programming the underlying logic structure, a first set of routing buses, and a first set of routing interconnect areas that provide interconnections between the first set of functional groups and the first set of routing buses. The first set of routing interconnect areas includes transistors and memory cells for programming the interconnections. The HA includes a second set of functional groups that is equal in number to the first set of functional groups and that are arranged like the first set of functional groups. Each functional group in the second set of functional groups includes an underlying logic structure that is like the underlying logic structure of the first set of functional groups but which does not include memory cells for programming the underlying logic structure. The HA also includes a second set of routing buses that are arranged like the first set of routing buses and a second set of routing interconnect areas that are arranged like the first set of routing interconnect areas but which do not include transistors and memory cells for programming interconnections.

17 Claims, 21 Drawing figures

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L7: Entry 10 of 15

File: USPT

Mar 18, 1997

US-PAT-NO: 5613135

DOCUMENT-IDENTIFIER: US 5613135 A

TITLE: Portable computer having dedicated register group and peripheral controller bus between system bus and peripheral controller

DATE-ISSUED: March 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sakai; Makoto	Tokyo	N/A	N/A	JPX
Dewa; Koichi	Tokyo	N/A	N/A	JPX
Tsukada; Hiroyuki	Tokyo	N/A	N/A	JPX
Uehara; Keiichi	Tokyo	N/A	N/A	JPX
Mamata; Tohru	Tokyo	N/A	N/A	JPX
Nishino; Yasuhiro	Tokyo	N/A	N/A	JPX
Oda; Hiroyuki	Tokyo	N/A	N/A	JPX

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Kabushiki Kaisha Toshiba	Kanagawa-ken	N/A	N/A	JPX	03

APPL-NO: 8/ 106724

DATE FILED: August 16, 1993

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	4-248327	September 17, 1992
JP	4-248328	September 17, 1992
JP	4-248356	September 17, 1992
JP	4-272471	September 17, 1992
JP	4-272479	September 17, 1992
JP	4-250165	September 18, 1992
JP	4-255000	September 24, 1992
JP	4-255001	September 24, 1992
JP	4-255004	September 24, 1992

INT-CL: [6] G06F 3/00

US-CL-ISSUED: 395/800; 395/887, 364/234, 364/234.4, 364/DIG.1, 364/928, 364/928.6, 364/DIG.2

US-CL-CURRENT: 710/62; 710/67, 712/43

FIELD-OF-SEARCH: 395/800, 395/275, 395/887, 364/DIG.1, 364/DIG.2, 364/234, 364/234.4, 364/928, 364/928.6

PRIOR-ART-DISCLOSED:

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<input type="checkbox"/>	<u>4470038</u>	September 1984	Amano et al.	340/365
<input type="checkbox"/>	<u>4621319</u>	November 1986	Braun et al.	364/200
<input type="checkbox"/>	<u>4739310</u>	April 1988	Yamamoto	340/365
<input type="checkbox"/>	<u>5121472</u>	June 1992	Danish et al.	395/275
<input type="checkbox"/>	<u>5138305</u>	August 1992	Tomiyasu	340/717
<input type="checkbox"/>	<u>5241646</u>	August 1993	Arai	395/500
<input type="checkbox"/>	<u>5291585</u>	March 1994	Sato et al.	395/500
<input type="checkbox"/>	<u>5333273</u>	July 1994	Raasch et al.	395/275
<input type="checkbox"/>	<u>5341316</u>	August 1994	Nishigaki	364/709.12
<input type="checkbox"/>	<u>5345392</u>	September 1994	Mito et al.	364/483
<input type="checkbox"/>	<u>5369771</u>	November 1994	Gettel	395/750
<input type="checkbox"/>	<u>5423045</u>	June 1995	Kannan et al.	395/750
<input type="checkbox"/>	<u>5485614</u>	January 1996	Kocis et al.	361/680

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0201020	December 1986	EPX	
0358423	March 1990	EPX	

OTHER PUBLICATIONS

Interrupt Protocol for Interconnected Microprocessos, Burmester & Jaschinski, IBM Technical Disclosure Bulletin, vol. 21, No. 2, Jul. 1978, New York, USA, pp. 786-787.

ART-UNIT: 238

PRIMARY-EXAMINER: Black; Thomas G.

ASSISTANT-EXAMINER: Darbe; Valerie

ATTY-AGENT-FIRM: Limbach & Limbach LLP

ABSTRACT:

Dedicated registers are arranged in a status LCD control gate array connected to a system bus, and the dedicated registers or register group and a keyboard controller are connected through a keyboard interface bus. The keyboard controller has two ports for communicating with a CPU. The keyboard controller transfers existing commands released to an application program or the like and transmits normal key data through the system bus. The keyboard controller transmits hot key data and transfers a command for realizing any other special function through the keyboard interface bus and the dedicated registers.

3 Claims, 78 Drawing figures

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L7: Entry 12 of 15

File: USPT

Aug 8, 1995

US-PAT-NO: 5440453

DOCUMENT-IDENTIFIER: US 5440453 A

TITLE: Extended architecture for FPGA

DATE-ISSUED: August 8, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cooke; Laurance H.	San Jose	CA	N/A	N/A
Penry; Matthew D.	Modesto	CA	N/A	N/A

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Crosspoint Solutions, Inc.	Santa Clara	CA	N/A	N/A	02

APPL-NO: 8/ 152267

DATE FILED: November 12, 1993

PARENT-CASE:

This is a Continuation of application Ser. No. 07/809,745, filed Dec. 18, 1991, now abandoned.

INT-CL: [6] H01R 23/68

US-CL-ISSUED: 361/790; 361/744, 361/791, 361/792, 257/697, 439/69, 174/262

US-CL-CURRENT: 361/790; 174/262, 257/697, 361/744, 361/791, 361/792, 439/69FIELD-OF-SEARCH: 361/744, 361/748, 361/767, 361/772, 361/776, 361/792, 361/791,
361/790, 361/794, 361/799, 257/686, 257/697, 439/45, 439/69, 439/74, 439/75,
174/52.4, 174/261, 174/262

PRIOR-ART-DISCLOSED:

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<input type="checkbox"/>	<u>3718750</u>	February 1973	Sayers et al.	N/A
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<input type="checkbox"/>	<u>3777221</u>	December 1973	Tatusko et al.	N/A
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<input type="checkbox"/>	<u>4953060</u>	August 1990	Lauffer et al.	361/388
<input type="checkbox"/>	<u>5128831</u>	July 1992	Fox, III et al.	361/396

ART-UNIT: 213

PRIMARY-EXAMINER: Picard; Leo P.

ASSISTANT-EXAMINER: Whang; Young

ATTY-AGENT-FIRM: Townsend and Townsend Khourie and Crew

ABSTRACT:

The invention provides a packaging technique implementing an electronic circuit, comprising several individually packaged sub-circuits, on a circuit board within the footprint of a single package. The embodiment of the present invention is particularly advantageous when implementing application specific integrated circuits (ASICs) or field programmable gate arrays (FPGAs). Selected pins of an upper package are electrically coupled to corresponding pins of the next lower adjacent package such that the pins of the uppermost package can be coupled to the pins of the lowermost package and correspondingly to the signal leads and power bus conductors of the printed circuit board. Portions of selected pins may be removed from one or more packages prior to forming the stacked structure to electrically isolate corresponding pins of upper packages from the pins of lower packages. A template is provided that permits rapid identification of pins to be removed before the packages are configured in the stack.

Careful partitioning of the electrical circuit permits a limited number of standard bonding patterns to be combined in a large variety of configurations by rotating packages relative to adjacent packages in the stack. Each package is also provided with additional pins that may be used for vertical routing in a manner that couples non-adjacent packages without coupling to intervening packages. Heat sinks and heat pipes are attachable to the stack to increase thermal dissipation.

32 Claims, 10 Drawing figures

WEST**End of Result Set**

Generate Collection

L8: Entry 1 of 1

File: USPT

Sep 12, 2000

US-PAT-NO: 6119181

DOCUMENT-IDENTIFIER: US 6119181 A

TITLE: I/O and memory bus system for DFPs and units with two- or multi-dimensional programmable cell architectures

DATE-ISSUED: September 12, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vorbach; Martin	Karlsruhe	N/A	N/A	DEX
Munch; Robert	Karlsruhe	N/A	N/A	DEX

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
PACT GmbH	Munich	N/A	N/A	DEX	03

APPL-NO: 8/ 947254

DATE FILED: October 8, 1997

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
DE	196 54 595	December 20, 1996

INT-CL: [7] G06F 13/40, G06F 15/80

US-CL-ISSUED: 710/100; 710/110, 710/129, 712/11

US-CL-CURRENT: 710/100; 710/110, 710/129, 712/11

FIELD-OF-SEARCH: 395/280, 395/309, 395/800.11, 395/80.25, 395/800.29, 395/377, 326/38, 326/39, 326/41, 364/489, 370/419, 710/100, 710/129, 710/110, 712/11, 712/14, 712/18, 712/25, 712/29, 712/31, 711/100

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/> <u>Re34363</u>	August 1993	Freeman	326/38
<input type="checkbox"/> <u>4706216</u>	November 1987	Carter	365/94
<input type="checkbox"/> <u>4739474</u>	April 1988	Holsztynski et al.	395/800.14
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<input type="checkbox"/>	<u>5125801</u>	June 1992	Nabity et al.	417/44.1
<input type="checkbox"/>	<u>5128559</u>	July 1992	Steele	326/38
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<input type="checkbox"/>	<u>5511173</u>	April 1996	Yamaura et al.	395/598
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<input type="checkbox"/>	<u>5548773</u>	August 1996	Kemney et al.	395/800.11
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<input type="checkbox"/>	<u>5559450</u>	September 1996	Ngai et al.	326/40
<input type="checkbox"/>	<u>5561738</u>	October 1996	Kinerk et al.	706/4
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<input type="checkbox"/>	<u>5659797</u>	August 1997	Zandveld et al.	710/22
<input type="checkbox"/>	<u>5844888</u>	December 1998	Markkula, Jr. et al.	370/255

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FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0 221 360	May 1987	EPX	
0428327A1	May 1991	EPX	
748 051 A2	December 1991	EPX	
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0 678 985	October 1995	EPX	
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Maxfield C. "Logic that Mutates While-U-Wait" EDN (Bur. Ed) (USA), EDN (European Edition), Nov. 7, 1996, Cahners Publishing, USA.

ART-UNIT: 271

PRIMARY-EXAMINER: Ray; Gopal C.

ATTY-AGENT-FIRM: Kenyon & Kenyon

ABSTRACT:

A uniform bus system is provided which operates without any special consideration by a programmer. Memories and peripheral may be connected to this bus system without any special measures. Likewise, units may be cascaded with the help of the bus system. The bus system combines a number of internal lines, and leads them as a bundle to terminals. The bus system control is predefined and does not require any influence by the programmer. Any number of memories, peripherals or other units can be connected to the bus system.

35 Claims, 20 Drawing figures

WEST**End of Result Set**

Generate Collection

L1: Entry 1 of 1

File: USPT

Jun 22, 1999

US-PAT-NO: 5915123

DOCUMENT-IDENTIFIER: US 5915123 A

TITLE: Method and apparatus for controlling configuration memory contexts of processing elements in a network of multiple context processing elements

DATE-ISSUED: June 22, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mirsky; Ethan	Mountain View	CA	N/A	N/A
French; Robert	Sunnyvale	CA	N/A	N/A
Eslick; Ian	Mountain View	CA	N/A	N/A

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Silicon Spice	Mountain View	CA	N/A	N/A	02

APPL-NO: 8/ 962141

DATE FILED: October 31, 1997

INT-CL: [6] G06F 15/177, H03K 19/177

US-CL-ISSUED: 395/800.16; 326/37, 326/38, 326/39, 395/653

US-CL-CURRENT: 712/16; 326/37, 326/38, 326/39

FIELD-OF-SEARCH: 326/38, 326/39, 326/37, 395/651, 395/653, 395/800.14, 395/800.15, 395/800.16

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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<input type="checkbox"/> <u>4748585</u>	May 1988	Chiarulli et al.	395/800.15
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ART-UNIT: 273

PRIMARY-EXAMINER: Kim; Kenneth S.

ATTY-AGENT-FIRM: Blakely, Sokoloff, Taylor & Zafman

ABSTRACT:

A method and apparatus for providing local control of processing elements in a network of multiple context processing elements are provided. A multiple context processing element is configured to store a number of configuration memory contexts. This multiple context processing element maintains data of a current configuration. State information is received from at least one other multiple context processing element. At least one configuration control signal is generated in response to the state information and the data of a current configuration. One of multiple configuration memory contexts is selected in response to the configuration control signal, the selected configuration memory context controlling the multiple context processing element. Each multiple context processing element in the networked array of multiple context processing elements has an assigned physical and virtual identification. Data is transmitted to at least one of the multiple context processing elements of the array, the data comprising control data, configuration data, an address mask, and a destination identification. The transmitted address mask is applied to either the physical or virtual identification and to a destination identification. The masked physical or virtual identification is compared to the masked destination identification. When the masked physical or virtual identification of a multiple context processing element matches the masked destination identification, at least one of the number of multiple context processing elements are manipulated in response to the transmitted data. Manipulation comprises selecting one of a number of configuration memory contexts to control the functioning of the multiple context processing element.

26 Claims, 23 Drawing figures

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Terms	Documents
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Database: US Patents Full-Text Database
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EPO Abstracts Database
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Search History**Today's Date: 4/20/2001**

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USPT	5915123.pn.	1	<u>L1</u>

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L3: Entry 1 of 13

File: USPT

Jan 27, 1998

US-PAT-NO: 5713037

DOCUMENT-IDENTIFIER: US 5713037 A

TITLE: Slide bus communication functions for SIMD/MIMD array processor

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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☐ 2. Document ID: US 5655124 A

L3: Entry 2 of 13

File: USPT

Aug 5, 1997

US-PAT-NO: 5655124

DOCUMENT-IDENTIFIER: US 5655124 A

TITLE: Selective power-down for high performance CPU/system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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☐ 3. Document ID: US 5652894 A

L3: Entry 3 of 13

File: USPT

Jul 29, 1997

US-PAT-NO: 5652894

DOCUMENT-IDENTIFIER: US 5652894 A

TITLE: Method and apparatus for providing power saving modes to a pipelined processor

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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☐ 4. Document ID: US 5634131 A

L3: Entry 4 of 13

File: USPT

May 27, 1997

US-PAT-NO: 5634131

DOCUMENT-IDENTIFIER: US 5634131 A

TITLE: Method and apparatus for independently stopping and restarting functional units

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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☐ 5. Document ID: US 5617547 A

L3: Entry 5 of 13

File: USPT

Apr 1, 1997

US-PAT-NO: 5617547

DOCUMENT-IDENTIFIER: US 5617547 A

TITLE: Switch network extension of bus architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 6. Document ID: US 5596742 A

L3: Entry 6 of 13

File: USPT

Jan 21, 1997

US-PAT-NO: 5596742

DOCUMENT-IDENTIFIER: US 5596742 A

TITLE: Virtual interconnections for reconfigurable logic systems

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 7. Document ID: US 5590348 A

L3: Entry 7 of 13

File: USPT

Dec 31, 1996

US-PAT-NO: 5590348

DOCUMENT-IDENTIFIER: US 5590348 A

TITLE: Status predictor for combined shifter-rotate/merge unit

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 8. Document ID: US 5440245 A

L3: Entry 8 of 13

File: USPT

Aug 8, 1995

US-PAT-NO: 5440245

DOCUMENT-IDENTIFIER: US 5440245 A

TITLE: Logic module with configurable combinational and sequential blocks

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 9. Document ID: US 5208491 A

L3: Entry 9 of 13

File: USPT

May 4, 1993

US-PAT-NO: 5208491

DOCUMENT-IDENTIFIER: US 5208491 A

TITLE: Field programmable gate array

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw Desc	Image
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☐ 10. Document ID: US 5115510 A

L3: Entry 10 of 13

File: USPT

May 19, 1992

US-PAT-NO: 5115510

DOCUMENT-IDENTIFIER: US 5115510 A

TITLE: Multistage data flow processor with instruction packet, fetch, storage transmission and address generation controlled by destination information

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw Desc	Image
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Documents, starting with Document:

11

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L3: Entry 11 of 13

File: USPT

Aug 27, 1991

US-PAT-NO: 5043978

DOCUMENT-IDENTIFIER: US 5043978 A

TITLE: Circuit arrangement for telecommunications exchanges

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 12. Document ID: US 4591979 A

L3: Entry 12 of 13

File: USPT

May 27, 1986

US-PAT-NO: 4591979

DOCUMENT-IDENTIFIER: US 4591979 A

TITLE: Data-flow-type digital processing apparatus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 13. Document ID: US 4489857 A

L3: Entry 13 of 13

File: USPT

Dec 25, 1984

US-PAT-NO: 4489857

DOCUMENT-IDENTIFIER: US 4489857 A

TITLE: Liquid dispenser

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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Derwent World Patents Index

Database: IBM Technical Disclosure Bulletins

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Clear

Search History

Today's Date: 4/20/2001

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USPT	4489857.pn. or 4591979.pn. or 5043978.pn. or 5115510.pn. or 5208491.pn. or 5440245.pn. or 5590348.pn. or 5596742.pn. or 5617547.pn. 5634131.pn. or 5652894.pn. or 5655124.pn. or 5713037.pn.	13	<u>L3</u>
USPT	5892961.pn.	1	<u>L2</u>
USPT	5915123.pn.	1	<u>L1</u>

WEST[Generate Collection](#)**Search Results - Record(s) 1 through 10 of 22 returned.**☐ 1. Document ID: US 6127908 A

L4: Entry 1 of 22

File: USPT

Oct 3, 2000

US-PAT-NO: 6127908

DOCUMENT-IDENTIFIER: US 6127908 A

TITLE: Microelectro-mechanical system actuator device and reconfigurable circuits utilizing same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 2. Document ID: US 6122719 A

L4: Entry 2 of 22

File: USPT

Sep 19, 2000

US-PAT-NO: 6122719

DOCUMENT-IDENTIFIER: US 6122719 A

TITLE: Method and apparatus for retiming in a network of multiple context processing elements

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 3. Document ID: US 6108760 A

L4: Entry 3 of 22

File: USPT

Aug 22, 2000

US-PAT-NO: 6108760

DOCUMENT-IDENTIFIER: US 6108760 A

TITLE: Method and apparatus for position independent reconfiguration in a network of multiple context processing elements

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 4. Document ID: US 6054873 A

L4: Entry 4 of 22

File: USPT

Apr 25, 2000

US-PAT-NO: 6054873

DOCUMENT-IDENTIFIER: US 6054873 A

TITLE: Interconnect structure between heterogeneous core regions in a programmable array

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 5. Document ID: US 6052773 A

L4: Entry 5 of 22

File: USPT

Apr 18, 2000

US-PAT-NO: 6052773

DOCUMENT-IDENTIFIER: US 6052773 A

TITLE: DPGA-coupled microprocessors

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 6. Document ID: US 6014509 A

L4: Entry 6 of 22

File: USPT

Jan 11, 2000

US-PAT-NO: 6014509

DOCUMENT-IDENTIFIER: US 6014509 A

TITLE: Field programmable gate array having access to orthogonal and diagonal adjacent neighboring cells

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 7. Document ID: US 5956518 A

L4: Entry 7 of 22

File: USPT

Sep 21, 1999

US-PAT-NO: 5956518

DOCUMENT-IDENTIFIER: US 5956518 A

TITLE: Intermediate-grain reconfigurable processing device

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 8. Document ID: US 5936424 A

L4: Entry 8 of 22

File: USPT

Aug 10, 1999

US-PAT-NO: 5936424

DOCUMENT-IDENTIFIER: US 5936424 A

TITLE: High speed bus with tree structure for selecting bus driver

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 9. Document ID: US 5927423 A

L4: Entry 9 of 22

File: USPT

Jul 27, 1999

US-PAT-NO: 5927423

DOCUMENT-IDENTIFIER: US 5927423 A

TITLE: Reconfigurable footprint mechanism for omnidirectional vehicles

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 10. Document ID: US 5915123 A

L4: Entry 10 of 22

File: USPT

Jun 22, 1999

US-PAT-NO: 5915123

DOCUMENT-IDENTIFIER: US 5915123 A

TITLE: Method and apparatus for controlling configuration memory contexts of processing elements in a network of multiple context processing elements

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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Documents, starting with Document:

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L4: Entry 11 of 22

File: USPT

Apr 6, 1999

US-PAT-NO: [5892961](#)

DOCUMENT-IDENTIFIER: US 5892961 A

TITLE: Field programmable gate array having programming instructions in the configuration bitstream

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 12. Document ID: US 5867691 A

L4: Entry 12 of 22

File: USPT

Feb 2, 1999

US-PAT-NO: [5867691](#)

DOCUMENT-IDENTIFIER: US 5867691 A

TITLE: Synchronizing system between function blocks arranged in hierarchical structures and large scale integrated circuit using the same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 13. Document ID: US 5838165 A

L4: Entry 13 of 22

File: USPT

Nov 17, 1998

US-PAT-NO: [5838165](#)

DOCUMENT-IDENTIFIER: US 5838165 A

TITLE: High performance self modifying on-the-fly alterable logic FPGA, architecture and method

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 14. Document ID: US 5828858 A

L4: Entry 14 of 22

File: USPT

Oct 27, 1998

US-PAT-NO: [5828858](#)

DOCUMENT-IDENTIFIER: US 5828858 A

TITLE: Worm-hole run-time reconfigurable processor field programmable gate array (FPGA)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 15. Document ID: US 5801715 A

L4: Entry 15 of 22

File: USPT

Sep 1, 1998

US-PAT-NO: 5801715

DOCUMENT-IDENTIFIER: US 5801715 A

TITLE: Massively-parallel processor array with outputs from individual processors directly to an external device without involving other processors or a common physical carrier

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 16. Document ID: US 5778439 A

L4: Entry 16 of 22

File: USPT

Jul 7, 1998

US-PAT-NO: 5778439

DOCUMENT-IDENTIFIER: US 5778439 A

TITLE: Programmable logic device with hierarchical configuration and state storage

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 17. Document ID: US 5761484 A

L4: Entry 17 of 22

File: USPT

Jun 2, 1998

US-PAT-NO: 5761484

DOCUMENT-IDENTIFIER: US 5761484 A

TITLE: Virtual interconnections for reconfigurable logic systems

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 18. Document ID: US 5754871 A

L4: Entry 18 of 22

File: USPT

May 19, 1998

US-PAT-NO: 5754871

DOCUMENT-IDENTIFIER: US 5754871 A

TITLE: Parallel processing system having asynchronous SIMD processing

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KVMC	Draw Desc	Image
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☐ 19. Document ID: US 5748872 A

L4: Entry 19 of 22

File: USPT

May 5, 1998

US-PAT-NO: 5748872

DOCUMENT-IDENTIFIER: US 5748872 A

TITLE: Direct replacement cell fault tolerant architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 20. Document ID: US 5742180 A

L4: Entry 20 of 22

File: USPT

Apr 21, 1998

US-PAT-NO: 5742180

DOCUMENT-IDENTIFIER: US 5742180 A

TITLE: Dynamically programmable gate array with multiple contexts

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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10

Documents, starting with Document:

21

Display Format:

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L4: Entry 21 of 22

File: USPT

Mar 31, 1998

US-PAT-NO: 5734921

DOCUMENT-IDENTIFIER: US 5734921 A

TITLE: Advanced parallel array processor computer package

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw Desc	Image
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☐ 22. Document ID: US 5717943 A

L4: Entry 22 of 22

File: USPT

Feb 10, 1998

US-PAT-NO: 5717943

DOCUMENT-IDENTIFIER: US 5717943 A

TITLE: Advanced parallel array processor (APAP)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw Desc	Image
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